

THE PERSISTENCE OF TRADITIONAL MEDICINE IN URBAN AREAS: THE CASE OF CANADA'S INDIANS

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Abstract: The persistence of the traditional medical systems¹ among Canadian Native peoples has been fairly well documented, and some commentators have suggested that a resurgence in these systems is currently underway (Gregory, 1988). Although there have been very few studies of the utilization of these medical systems by contemporary Native peoples, there has been some suggestion that dual utilization is indeed practiced. Virtually nothing is known about the specific patterns of utilization, and the relationship, if any, between the utilization of traditional and western medical services. Similarly, few aspects of health care utilization by Native peoples in urban areas have been researched. The purpose of this paper is to explore this relationship through the examination of data obtained in a recent study of Native and non-Native medical service utilization patterns in the city of Saskatoon, Saskatchewan.

Current Perspectives on the Persistence of Traditional Medical Systems

A review of the literature suggests that there are a variety of explanations offered for the persistence of traditional medical systems in both rural and urban settings in the face of newly introduced or expanded western services. A common explanation refers to the availability of western medical facilities. This perspective argues that there is, in effect, a relationship between the adequacy of western medical facilities and the utilization of traditional medical resources. Simply put, it is argued that where access to western health services is limited, traditional services are utilized. Lasker (1981) warns of the need to maintain a broad definition of "accessibility," arguing that the simple presence of a service is an insufficient measure of accessibility. Press (1978) argues that in urban areas (particularly poor, marginal neighborhoods), there may be few western services, leading to the persistence of "folk" medicine to fill in the gaps. The same argument has been utilized to explain the persistence of traditional medical systems in rural areas, where access to western services is even more likely to be restricted. Indeed, the World Health Organization (WHO) has implicitly adhered to this explanation in its Alma-Ata Declaration on primary health care and in its promotion of traditional health systems in third world countries where western services are inadequate (WHO, 1978).

American Indian and Alaska Native Mental Health Research,
4(1), Fall 1990, pp. 9-29

WHO's position has been criticized by some authors who argue, as does Laguerre (1987), that "the poor, like everyone else, want access to better health care facilities." The problem with this critique is that it is both a-cultural and ethnocentric; it is not grounded in the reality of health care delivery on a global scale. The greatest refutation of such criticism can be found in the few studies of medical care utilization in urban areas, particularly those areas where western services are available. Research demonstrates quite clearly that under such circumstances, indigenous and other peoples will continue to utilize traditional or other folk medical services in conjunction with western services (Asuni, 1979; Bhatia, et al., 1975; Finkler, 1981, 1985; Nchinda, 1976). Furthermore, critics seem unwilling to consider that: 1) traditional medical services may be viewed by these populations as more efficacious than western medicine, at least for certain problems; and 2) that traditional services may in fact be more efficacious than western medicine from a scientific perspective.

Some researchers have argued, at least in part, that certain socio-economic variables can explain the utilization of traditional medical services. For instance, Press (1969) argues that dual use in Bogota was greatest among people with the lowest socio-economic standing, which he related to a low level of acculturation (or, by corollary, a high degree of adherence to traditional ways). In contrast, both Asuni (1979) and Nchinda (1976) have argued that traditional medical services may be utilized by those with varying levels of formal education, including the highly educated who, one might surmise, would be the most acculturated. Finkler (1981) has cautioned against assuming that all members of any particular socio-cultural or socio-economic group "share the same non-medical orientation" and "avail themselves similarly of competing systems of health care."

The concept of culture is well-represented in the literature on the utilization of medical systems. In general, it is argued that the elements of the traditional culture relevant to utilization behavior remain intact even when western services are introduced (Woods, 1977). Welsch (1983) has argued that the Ningerum of Papua New Guinea have simply incorporated western medical services into their existing medical system and use traditional and western services in a complementary manner. Camazine (1980) has also demonstrated how the Zuni of New Mexico use western and traditional medicine in a complementary fashion, in this case because they not only treat somewhat different types of illnesses, but also because the traditional systems are better at dealing with the psychological and social aspects of illness in general. Press (1978) even argues that the persistence of traditional medical services in urban areas eases acculturation pressures for migrants by maintaining a link with the old ways while facing the new. Nyamwaya (1987) indicates that, for the Pokot of Kenya, complementarily has also developed, with some individuals utilizing western services even where an indigenous cause is suspected. Of particular relevance to this research, he states: "It is thus clear that belief in inter-personal and spiritual forces in the causation of illness need not be

a hindrance to the utilization of western medicine because western medicine is actually used when available but for the biological aspects of illness, which it is thought to be capable of dealing with" (Nyamwaya, 1987). The North American case par excellence is that of the Navajo, whose strong adherence to traditional medical beliefs has forced the western system to adapt to them on the reservation (Adair, 1963; Kunitz, 1983).

It is clear from the literature that generalizing about the utilization of traditional and western medical systems is all but impossible. If anything, a variety of factors may explain the continued use of traditional systems in an era of ever-expanding western services. The persistence of traditional cultural beliefs and the availability of western services are obviously important, although other socio-economic factors operating at a more individual level cannot be discounted. Overall, the literature suggests that dual utilization is a common adaptation to the existence of two different medical systems, and that the existence of one system does not necessarily affect the utilization of the other.

North American Urban Studies

There is a dearth of studies on the persistence and utilization of traditional medicine by urban North American Indian peoples. Almost exclusively, this topic has been researched in the context of the Canadian Indian reserve or the American Indian reservation.

Only one study exists on the use of traditional medical services by an urban Native population in North America that is comparable to the study to be discussed in this paper. In a study of 277 Indian families in San Francisco in the early 1970s, Fuchs and Bashshur (1975) examined four hypotheses. The two hypotheses of relevance to this research were that "The use of traditional Indian medicine will be maintained in addition to, rather than instead of, Anglo medicine," and that "The use of traditional medicine will not vary with income, education, and other socioeconomic factors." The researchers determined that their data supported both hypotheses. Specifically, they found that having a family physician, the utilization of physician services, and infant immunizations did not differentiate the users of traditional from western medicine. Their data did demonstrate that the existence of a serious illness requiring hospitalization was an important factor determining the use of traditional medicine. Of particular significance, however, was their finding that families who experienced difficulty obtaining medical care tended to utilize traditional medicine more than those not experiencing these problems. Levels of education and income were not useful in predicting traditional medicine use, although their data did suggest that persons with a higher level of education tended to use traditional medicine more than those with lower levels.

In contrast, those speaking an Indian language demonstrated greater use of traditional medicine. Length of residence in the city was somewhat important: those in the city the shortest time tended to use

traditional medicine more than long-term residents, but utilization of traditional medicine remained extensive even among the latter. Finally, the authors argued that many individuals returned to the reservation to utilize traditional medicine. Overall, they concluded that cultural factors are more important for predicting the utilization of traditional medicine than socio-economic factors, and that utilization is not concentrated in the lower socio-economic group.

A study of the Puyallup Indians of Washington provides even less direction than the Fuchs-Bashshur study (Guilmet, 1984). The study examined a variety of health-seeking strategies of this Indian group which, although reservation-based, was surrounded by the city of Tacoma and was very urbanized as a result. A striking similarity existed between the Puyallup study and the one presented in this paper in that most medical services were provided free, and hence financial constraints were relatively insignificant. However, the Washington data demonstrated virtually no utilization of traditional medicine or healers, a fact which Guilmet attributes to years of acculturative pressures and legislative actions outlawing the practice of Indian medicine. The author does suggest that more Indian medicine may be utilized than his study uncovered, but is unable to offer much concrete data on this.

In Canada, only one other study has addressed, in part, the question of utilization of traditional Indian medicine in the city. A study of the "skid row" population in Vancouver by Mears, et al. (1981) uncovered relatively little use of traditional healers or medicine. The authors concluded that lack of access to traditional medicine in the city was one reason for this.

The Saskatoon Study

In 1987, the author commenced a comparative study of the utilization of medical care services among the urban poor in the core area of Saskatoon, a prairie city of some 170,000 people. The overall results of this study have been published elsewhere (Waldram & Layman, 1989). With an estimated city Native² population of between 11,000 and 20,000 people, Native presence in the core area is significant. The study sought to understand their utilization patterns in comparison with those of similarly disadvantaged non-Natives.

A total of 226 interviews were conducted with Natives and non-Natives. Two research sites were utilized: one was a medical clinic established in the core area primarily to provide services to disadvantaged persons, and the other was a social service agency located adjacent to the clinic which provides meals, and recreational and social services to the same population. An availability sample was utilized because there exists no comprehensive listing of Natives in this area. Potential adult respondents were simply approached and asked to participate in the study; there were very few refusals. Although the availability sampling technique

was the logical choice, under the circumstances, its limitations are apparent: generalizations beyond the sample can be made only with extreme caution.

The interview schedule utilized consisted of 123 closed- and open-ended questions, and was administered in English by non-Native researchers. In general, respondents appeared willing to openly discuss the issues raised in the interviews, and a great deal of qualitative data was accumulated through these voluntary offerings. The existence of language problems appeared to hamper only one interview. It is likely that use of Indian medicine in the study is under-represented for a variety of reasons; nonetheless, we were surprised at the extent to which many respondents were willing to discuss this issue with a non-Native.

While the overall study involved both Natives and non-Natives, my concern in this paper is with a sub-group of the overall Native population. This sub-group consists of two categories: status Indians, or those recognized by the Canadian government as "Indians" for purposes of program administration, and non-status Indians, or those not so recognized by the federal government. Elsewhere it has been suggested that there are few cultural differences between the two groups (Waldram, 1987). The current research also demonstrated that the two groups were indistinguishable in terms of specific cultural criteria, especially Indian language utilization. Hence, for this paper I have grouped them together, and refer to them collectively as "Indians." Overall, 119 respondents were so identified, representing five different Indian cultural groups (in order, Plains Cree, Northern Cree, Saulteaux, Dakota, and Dene).

The Indian sample exhibited a mean age of 30.6 years, with 57% female and 43% male. Some 64% were single, separated, divorced or widowed, and 52.8% had dependent children. The mean educational level was 8.7 years, with 92.9% unemployed at the time of the interview.

In Canada, medical care costs for status Indians are the responsibility of the federal government, which either administers services directly (usually in clinics on reserves) or else reimburses specific provinces for services rendered. Non-status Indians do not receive federal medical care services. However, in the Province of Saskatchewan, most medical services are available free of charge to all provincial residents, including non-status Indians. Hence, financial restrictions in the use of most services are minimal and consistent for both the status and non-status Indian populations. There are a few areas in which the non-status Indians are disadvantaged, such as in paying for prescription drugs and glasses. In Saskatchewan, residents pay the full cost of prescription drugs up to a pre-established limit, after which they pay only a fraction. All prescription drug costs for status Indians are covered by the federal government. The federal government will also pay up to a limit for the cost of prescription glasses for status Indians; the non-status Indians are responsible for their own expenses in this area.

Hypotheses

Guided by the existing literature, including the work of Fuchs and Bashshur (1975), the present research tested the following related hypotheses:

1. The utilization of traditional medical services will not detract from the utilization of western medical services among the urban Indian population.
2. Those demonstrating difficulty in utilizing western medicine will demonstrate a greater utilization of traditional medicine.
3. Language variables will be useful in predicting utilization of traditional medicine.
4. Those with the lowest socio-economic standing are more likely than those with higher standing to utilize traditional medicine in the city.

Traditional medical services were defined narrowly in this study to allow for the use of various statistical techniques. In specific, the following variables were selected to measure the utilization of traditional medical services: a) consultation with a traditional healer at some time in the past, and in the year previous to interview; b) utilization of Indian herbal medicines, including sweetgrass, in the past year; and c) undertaking a sweat-lodge ceremony in the past year.

In addition, two beliefs were included to measure attitudes toward traditional Indian medicine: a) belief that Indian medicine could handle some medical problems better than western medicine; and b) desire to have traditional medical services available in a western medical facility, such as a clinic.

The utilization of western medical services was measured by the following variables: a) existence of a regular or family physician; b) last visit to the regular or family physician; c) last physical examination; d) visits to hospital emergency departments; e) existence of a regular dentist; f) last dental examination; g) last eye examination; and h) existence of a regular pharmacy.

Difficulty in utilizing western medical services was measured through a variety of declaratory questions, wherein the respondent indicated whether or not they experienced a particular problem. Potential problems included difficulties: a) explaining their health problem to a physician or nurse; b) understanding the physician; c) finding a physician; d) making appointments; and e) paying for non-prescription medications.

The language variables utilized in this analysis were: a) first language spoken; b) ability to speak an Indian language today; and c) frequency of current Indian language utilization.

Results

Hypothesis One: The utilization of traditional medical services would not detract from the utilization of western medical services among the urban Indian population.

Overall, the data suggest an acceptance of this hypothesis. As Table 1 demonstrates, there appears to be little relationship between the utilization of traditional medicine and the utilization of western medicine for the respondents. Indeed, although not statistically significant, a higher percentage of those having consulted a healer in the past actually reported a regular or family physician, a more recent contact with that physician, a more recent eye examination, and a visit to a hospital emergency department. Interestingly, a significantly higher percentage of respondents who had seen a healer at some time in the past reported having a regular dentist, although there was little difference in terms of contact with a dentist.

The data regarding the utilization of Indian medicine was similar, as Table 2 demonstrates. While not statistically significant, it is interesting that almost 87% of those who had used herbal medicines and 76.6% of those who had used sweetgrass reported having a regular physician, in comparison to 75.9% of those not using any Indian medicines ($\chi^2=0.823$, $df=2$, $p=0.66$). Similarly, 75% of those who had used herbal medicines had seen their physician within the previous month, compared to 59% of those not using such medicines ($\chi^2=6.46$, $df=6$, $p=0.37$), and 73.3% had reported having a physical examination within the last year, compared to only 52.7% of those not using any Indian medicines ($\chi^2=4.83$, $df=6$, $p=0.57$).

Although past utilization of traditional medical services was fairly extensive, actual utilization within the year prior to the research was not, with the exception of the use of self-administered herbal medicines. For instance, only six respondents had actually seen a healer in the previous year, and in every case this was in a locale outside the city. Elsewhere (Waldram, 1990a), I have discussed the problem of access to traditional medicine in Saskatoon, noting that while many people desire such access, very few actually know of a healer in the city and only about half believe they could find one.

Of the respondents interviewed in the clinic, three had gone to a healer concerning the specific problem they were experiencing, and another three individuals indicated their plans to do so.

Overall, only a handful ($n=6$) of respondents had undertaken a sweat in the previous year; three of these six also reported having seen a healer for their current health problem, as reported above, and the sweat may have been a component of that consultation. While all six of these individuals reported having a regular or family physician, in comparison to

75% of those not having undertaken a sweat, the low cell frequency makes data analysis essentially meaningless for this variable.

The attitudinal variables were similar to the others so far discussed in that they failed largely to produce statistically significant results. For instance, whereas 72.6% of those believing Indian healers could handle some medical problems better than western doctors reported having a regular or family physician, so did 82.5% of those not agreeing with this view ($\chi^2=1.33$, $df=1$, $p=0.25$). Some 60% of those believing in the efficacy of Indian medicine reported having seen their physician within the last month, compared to 42.9% of the non-believers ($\chi^2=3.83$, $df=3$, $p=0.28$); and 48.4% of the believers, reported a physical examination within the last year compared to 57.5% of the non-believers ($\chi^2=1.67$, $df=3$, $p=0.64$). Of respondents believing in Indian medicine, 47.5% reported a regular dentist, compared to 30.0% of the non-believers ($\chi^2=3.08$, $df=1$, $p=0.08$).

Those willing to consult an Indian healer in a western medical setting tended to differ little from those unwilling to do so in terms of their utilization of western medicine. For instance, 76.9% of those so willing also reported having a regular physician, in comparison to 74.2% of those unwilling ($\chi^2=0.091$, $df=1$, $p=0.76$); similarly, none of the other variables were statistically significant.

The data clearly support the hypothesis that the utilization of traditional medical services does not detract from the utilization of western medical services. Indeed, although few of the differences were statistically significant, there is a pattern which at least suggests that those who utilize traditional medicine demonstrate a greater utilization of western medical services.

Table 1
Past Consultation with Indian Healer by Various Measures
of Utilization of Western Medicine

	Past Consultation with Indian Healer	
	YES	NO
Existence Of Regular Physician ($\chi^2=1.43$, $df=1$, $p=0.23$)		
Yes	31 (83.8%)	56 (73.7%)
No	6 (16.2%)	20 (26.3%)
Last Visit To Regular Physician (Mann-Whitney U=624, $p=0.09$)		
In The Last Month	21 (65.6%)	24 (49.0%)
In The Last Three Months	7 (21.9%)	12 (24.5%)
In The Last Year	3 (9.4%)	6 (12.2%)
More Than A Year Ago	1 (3.1%)	7 (14.3%)

Table 1 (Continued)
Past Consultation with Indian Healer by Various Measures
of Utilization of Western Medicine

	Past Consultation with Indian Healer	
	YES	NO
Last Physical Examination ($\chi^2=2.34$, $df=3$, $p=0.51$)		
In Last Year	23 (60.5%)	39 (51.3%)
In Last Three Years	8 (21.1%)	17 (22.4%)
More Than Three Years Ago	2 (5.3%)	11 (14.5%)
Can't Remember/never	5 (13.2%)	9 (11.8%)
Existence Of Regular Dentist ($\chi^2=8.45$, $df=1$, $p=0.00$)		
Yes	23 (60.5%)	24 (32.0%)
No	15 (39.5%)	51 (68.0%)
Last Visit To Dentist ($\chi^2=0.223$, $df=2$, $p=0.90$)		
In Last Year	16 (42.1%)	35 (46.1%)
More Than Year Ago	20 (52.6%)	38 (50.0%)
Can't Remember/Never	2 (5.3%)	3 (3.9%)
Visit To Hospital Emergency Department ($\chi^2=1.46$, $df=1$, $p=0.23$)		
Yes	22 (59.5%)	36 (47.4%)
No	15 (40.5%)	40 (52.6%)
Last Eye Examination ($\chi^2=1.08$, $df=2$, $p=0.58$)		
In Last Two Years	23 (60.5%)	44 (57.9%)
More Than Two Years Ago	12 (31.6%)	29 (38.2%)
Can't Remember/Never	3 (7.9%)	3 (3.9%)
Existence Of Regular Pharmacy ($\chi^2=0.348$, $df=1$, $p=0.56$)		
Yes	26 (68.4%)	56 (73.7%)
No	12 (31.6%)	20 (26.3%)

Table 2
Utilization of Indian Medicines by Various Measures
of Utilization of Western Medicine

	Utilization of Indian Medicines		
	Herbal Medicines	Sweetgrass	None
Existence of Regular Physician ($\chi^2=0.823$, $df=2$, $p=0.66$)			
Yes	13 (86.7%)	36 (76.6%)	41 (75.9%)
No	2 (13.3%)	11 (23.4%)	13 (24.1%)
Last Visit to Regular Physician ($\chi^2=3.3253$, $p=0.20$; Kruskal-Wallis one-way analysis of variance)			
In The Last Month	9 (75.0%)	15 (45.5%)	23 (59.0%)
In The Last Three Months	1 (8.3%)	9 (27.3%)	10 (25.6%)
In The Last Year	2 (16.7%)	5 (15.2%)	2 (5.1%)
More Than A Year Ago	---	4 (12.1%)	4 (10.3%)
Last Physical Examination ($\chi^2=3.349$, $p=0.18$; Kruskal-Wallis one-way analysis of variance)			
In Last Year	11 (73.3%)	24 (51.1%)	29 (52.7%)
In Last Three Years	3 (20.0%)	9 (19.1%)	14 (25.2%)
More Than Three Years Ago	1 (6.7%)	7 (14.9%)	5 (9.1%)
Can't Remember/Never	---	7 (14.9%)	7 (12.7%)
Existence of Regular Dentist ($\chi^2=2.25$, $df=2$, $p=0.33$)			
Yes	9 (60.0%)	19 (40.4%)	21 (38.9%)
No	6 (40.0%)	28 (59.6%)	33 (61.1%)
Last Visit to Dentist ($\chi^2=2.19$, $df=4$, $p=0.70$)			
In Last Year	8 (53.3%)	21 (44.7%)	21 (38.2%)
More Than Year Ago	7 (46.7%)	24 (51.1%)	30 (54.5%)
Can't Remember/Never	---	2 (4.3%)	4 (7.3%)
Visit to Hospital Emergency Department ($\chi^2=0.224$, $df=2$, $p=0.89$)			
Yes	8 (53.3%)	22 (46.8%)	27 (50.0%)
No	7 (46.7%)	25 (53.2%)	27 (50.0%)

Table 2 (Continued)
Utilization of Indian Medicines by Various Measures
of Utilization of Western Medicine

	Utilization of Indian Medicines		
	Herbal Medicines	Sweetgrass	None
Last Eye Examination ($\chi^2=4.89$, $df=4$, $p=0.30$)			
In Last Two Years	12 (80.0%)	23 (48.9%)	33 (60.0%)
More Than Two Years Ago	3 (20.0%)	21 (44.7%)	19 (34.5%)
Can't Remember/Never	---	3 (6.4%)	3 (5.5%)

Existence of Regular Pharmacy
($\chi^2=0.819$, $df=2$, $p=0.66$)

Yes	12 (80.0%)	32 (68.1%)	38 (69.1%)
No	3 (20.0%)	15 (31.9%)	17 (30.9%)

Hypothesis Two: Those demonstrating difficulty in utilizing western medicine will demonstrate a greater utilization of traditional medicine.

Tables 3 and 4 present a variety of data related to this hypothesis. In no cases were the data statistically significant. For example, while 28.9% of those having difficulty explaining their health problem to a physician had used Indian medicine in the past; 26.3% of those expressing such a difficulty had not used Indian medicine. Likewise, while 36.8% of those having difficulties paying for non-prescription medications had a past consultation with a healer, 31.6% of those not experiencing these problems had also seen a healer. The data for the utilization of Indian medicines is very similar. Therefore we must reject this hypothesis. There is no support for the idea that Indians who are alienated from western medicine due to various utilization problems are using Indian medicine as an alternative.

Table 3
Past Consultation with Indian Healer by Various Measures
of Difficulty in Utilizing Western Medicine

	Past Consultation with Indian Healer	
	YES	NO
Difficulty Explaining Health Problem ($\chi^2=0.0887$, $df=1$, $p=0.77$)		
Yes	11 (28.9%)	20 (26.3%)
No	27 (71.1%)	56 (73.7%)

Table 3 (Continued)
Past Consultation with Indian Healer by Various Measures
of Difficulty in Utilizing Western Medicine

	Past Consultation with Indian Healer	
	YES	NO
Difficulty Understanding Physician's Language ($\chi^2=0.283$, $df=1$, $p=0.60$)		
Yes	16 (42.1%)	36 (47.4%)
No	22 (57.9%)	40 (52.6%)
Difficulty Finding a Physician When Needed ($\chi^2=0.035$, $df=1$, $p=0.85$)		
Yes	6 (15.8%)	11 (14.5%)
No	32 (84.2%)	65 (85.5%)
Difficulty Making Appointments ($\chi^2=0.055$, $df=1$, $p=0.82$)		
Yes	8 (21.6%)	15 (19.7%)
No	29 (78.4%)	61 (80.3%)
Difficulties Paying For Non-prescription Medications ($\chi^2=0.316$, $df=1$, $p=0.57$)		
Yes	14 (36.8%)	24 (31.6%)
No	24 (63.2%)	52 (68.4%)

Table 4
Utilization of Indian Medicines by Various Measures
of Difficulty Utilizing Western Medicine

	Utilization of Indian Medicines		
	Herbal Medicines	Sweetgrass	None
Difficulty Explaining Health Problem ($\chi^2=1.33$, $df=2$, $p=0.515$)			
Yes	4 (26.7%)	15 (31.9%)	12 (21.8%)
No	11 (73.3%)	32 (68.1%)	43 (78.2%)
Difficulty Understanding Physicians Language ($\chi^2=1.166$, $df=2$, $p=0.558$)			
Yes	5 (33.3%)	23 (48.9%)	26 (47.3%)
No	10 (66.7%)	24 (51.1%)	29 (52.7%)

Table 4 (Continued)
Utilization of Indian Medicines by Various Measures
of Difficulty Utilizing Western Medicine

	Utilization of Indian Medicines		
	Herbal Medicines	Sweetgrass	None
Difficulty Finding Physician When Needed ($\chi^2=0.022$, $df=2$, $p=0.989$)			
Yes	2 (13.3%)	7 (14.9%)	8 (14.5%)
No	13 (86.7%)	40 (85.1%)	47 (85.5%)
Difficulty Making Appointments ($\chi^2=0.470$, $df=2$, $p=0.791$)			
Yes	2 (13.3%)	10 (21.3%)	11 (20.4%)
No	13 (86.7%)	37 (78.7%)	43 (79.6%)
Difficulty Paying For Non-Prescription Medications ($\chi^2=2.00$, $df=2$, $p=0.368$)			
Yes	4 (28.6%)	17 (37.0%)	10 (23.3%)
No	10 (71.4%)	29 (63.0%)	33 (76.7%)

Hypothesis Three: Language variables will be useful in predicting utilization of traditional medicine.

The three language variables were based on the assumption that Indian individuals with the strongest ties to their Indian language would be most likely to also retain traditional cultural beliefs, including beliefs in the efficacy of Indian medicine. Tables 5 and 6 present the data from this analysis.

As the data demonstrate, language is very significant in understanding the utilization of traditional medicine. Of particular importance is the fact that 34.7% of those who currently speak an Indian language (i.e., they are bilingual in English and an Indian language) have sought the services of an Indian healer in the past, compared to only 12.5% of current monolingual English-speakers. In terms of utilization of Indian medicine in the past year, the data demonstrate that all of those who had undertaken a sweat ($n=6$) spoke an Indian language as their first language (these data not shown). Although not statistically significant, a higher percentage of those with an Indian language as their first language (61.9%) versus those whose first language was non-Indian (52.6%), had utilized some form of Indian medicine (either herbs or sweetgrass) in the previous year. The picture is not completely clear, however, since statistically significant differences were not achieved for some of these analyses.

The attitudinal questions present a much clearer picture of the persistence of traditional medical beliefs among urban Indians. For instance, 68.5% of those with an Indian language as a first language, and 67.6% of the current Indian language speakers believed in the superiority of Indian medicine for some medical problems. In contrast, only 50.0% of the non-Indian first language speakers and 35.3% of those currently unable to speak an Indian language believed the same. A similar pattern is evident in the tables for those who would and would not consult with a healer in a western medical clinic.

Overall, then, the data allow only a tentative acceptance of hypothesis three.

Table 5
Utilization of Traditional Medicine by First Spoken Language

	First Spoken Language	
	INDIAN	NON-INDIAN
Past Consultation With Healer ($\chi^2=0.099$, $df=1$, $p=0.75$)		
Yes	18 (30.0%)	10 (27.0%)
No	42 (70.0%)	27 (73.0%)
Had Sweat in Last Year ($\chi^2=2.38$, $df=1$, $p=0.12$)		
Yes	6 (9.7%)	---
No	56 (90.3%)	38 (100.0%)
Utilization of Indian Medicines ($\chi^2=1.06$, $df=2$, $p=0.59$)		
Herbal Medicines	10 (15.9%)	4 (10.5%)
Sweetgrass	29 (46.0%)	16 (42.1%)
None	24 (38.1%)	18 (47.4%)
Would Consult Healer in Clinic ($\chi^2=4.09$, $df=1$, $p=0.04$)		
Yes	47 (82.5%)	23 (63.9%)
No	10 (17.5%)	13 (36.1%)
Belief in Superiority of Indian Healers for Some Medical Problems ($\chi^2=2.91$, $df=1$, $p=0.09$)		
Yes	37 (68.5%)	16 (50.0%)
No	17 (31.5%)	16 (50.0%)

Table 6
Utilization of Traditional Medicine by Current
Ability to Speak an Indian Language

	Current Ability to Speak Indian Language	
	YES	NO
Past Consultation With Healer ($\chi^2=4.31$, $df=1$, $p=0.38$)		
Yes	26 (34.7%)	3 (12.5%)
No	49 (65.3%)	21 (87.5%)
Utilization of Indian Medicines ($\chi^2=0.83$, $df=2$, $p=0.66$)		
Herbal Medicines	12 (15.4%)	2 (8.3%)
Sweetgrass	34 (43.6%)	12 (50.0%)
None	32 (41.0%)	10 (41.7%)
Would Consult Healer in Clinic ($\chi^2=2.57$, $df=1$, $p=0.11$)		
Yes	56 (77.8%)	14 (60.9%)
No	16 (22.2%)	9 (39.1%)
Belief in Superiority of Indian Healers for Some Medical Problems ($\chi^2=6.04$, $df=1$, $p=0.01$)		
Yes	48 (67.6%)	6 (35.3%)
No	23 (32.4%)	11 (64.7%)

***Hypothesis Four:** Those with lower socio-economic standing are more likely than those with higher standing to utilize traditional medicine in the city.*

Although some of the literature cited earlier suggests that socio-economic status was not particularly important in understanding the use of traditional medicine, the question is far from settled.

Elsewhere, in comparing overall Native and non-Native patterns of utilization of urban western medical services, I have demonstrated broad similarities between the two populations and argued that their comparable status as disadvantaged core-dwellers explains their respective utilization patterns more than differences in culture (Waldram, 1990b). The Indian sub-sample likewise demonstrated certain uniformity in this area. Nevertheless, data analysis demonstrated some very interesting differences. These data are presented in Table 7.

As the data demonstrate, there were no statistically significant differences in terms of age, education, or income for those utilizing Indian medicines in the previous year. In contrast, those stating that they believed in the efficacy of Indian medicine for certain medical problems tended to be slightly younger and have slightly higher education and incomes; the same was true of those who stated they would consult with a healer in a clinic were one available. Those reporting a past consultation with a healer tended to be older with higher incomes.

Other data analyses, not presented here, demonstrated no significant differences for any utilization and attitudinal variables in terms of sex, marital status, existence of dependent children, or the receipt of government social assistance payments (made to both unemployed and unemployable individuals).

It is interesting to note that, while respondents reporting a previous consultation with a healer were slightly older than those not reporting a consultation, those believing in the superiority of Indian healers for some medical problems and willing to consult with a healer in a clinic tended to be younger. It is possible that the older respondents were more pragmatic in their assessment of the efficacy of Indian medicine, in part due to greater knowledge of it, which in turn resulted in them viewing Indian medicine in a clinic as culturally inappropriate or simply not feasible. The data do not allow us to definitively address this issue, however.

Overall, the data suggests that we reject hypothesis four. Indeed, urban Indian respondents most likely to utilize or believe in Indian medicine tended to have a slightly higher socio-economic standing than their peers. These data must be viewed with some caution, however, since a full range of socio-economic variability was unavailable from this sample. It is not possible to state that more affluent, middle-class urban Indians would demonstrate similar beliefs and utilization patterns.

Table 7
Utilization of Traditional Medicine by
Various Socio-Economic Variables

	Past Consultation with Healer	
	YES	NO
Age (years) ($t=1.75$, $df=112$, $p=0.08$)		
Mean	32.8	29.3
Education (grades completed) ($t=0.20$, $df=54.7$, $p=0.84$)		
Mean	8.6	8.5

Table 7 (Continued)
Utilization of Traditional Medicine by
Various Socio-Economic Variables

	Past Consultation with Healer	
	YES	NO
Annual Income (\$) ($t=1.96$, $df=105$, $p=0.05$)		
Mean	8270	6596
Utilization of Indian Medicines		
	Herbal Medicines/ Sweetgrass	None
Age (years) ($t=-0.82$, $df=115$, $p=0.41$)		
Mean	29.9	31.4
Education (grades completed) ($t=0.39$, $df=115$, $p=0.70$)		
Mean	8.7	8.5
Annual Income (\$) ($t=-0.07$, $df=107$, $p=0.95$)		
Mean	7263	7319
Belief in Superiority of Indian Healers for Some Medical Problems		
	YES	NO
Age (years) ($t=-2.34$, $df=56.9$, $p=0.02$)		
Mean	28.3	33.4
Education (grades completed) ($t=2.43$, $df=100$, $p=0.02$)		
Mean	8.9	7.9
Annual Income (\$) ($t=1.42$, $df=96$, $p=0.16$)		
Mean	7839	6565

Table 7 (Continued)
Utilization of Traditional Medicine by
Various Socio-Economic Variables

	Would Consult Healer in Clinic	
	YES	NO
Age (years) ($t=-2.06$, $df=44.4$, $p=0.05$)		
Mean	28.7	33.6
Education (grades completed) ($t=0.90$, $df=45.0$, $p=0.37$)		
Mean	8.8	8.4
Annual Income (\$) ($t=1.04$, $df=100$, $p=0.30$)		
Mean	7333	6402

Discussion

In accepting the first and third hypotheses and rejecting the second and fourth, we are led to the conclusion that individuals continue to utilize traditional medical services while living in the city for reasons largely unrelated to the existence of western medical services or problems in utilizing these services, including financial problems. Clearly, the utilization of traditional services does not detract from the utilization of western services.

It can also be argued that for this Indian population, the continued utilization of traditional medicine in the city represents a transference of traditional medical beliefs, especially the beliefs concerning the efficacy of Indian medicine, to the urban context. Traditional medicine remains important to these individuals precisely because they have retained basic elements of their culture, measured in this research by language variables. This retention may, indeed, be fostered by contact with rural or reserve-based Indian cultures, where Indian medical practices are still strong, and by contact with newly arrived migrants. Nevertheless, the data suggest a persistence in beliefs in the urban, multicultural context. And while the sample as a whole was economically disadvantaged, the data suggest that socio-economic standing is likely less important here than the persistence of traditional culture.

The data also demonstrate that western medical services are being utilized extensively, and that the use of traditional services in general are as an adjunct to, rather than a substitution for, western services. Although a few cases occasionally emerged in the research where a patient was forced to decide between contradictory treatments prescribed by a physician and a healer, these were rare. The folklore in the medical community contains anecdotes regarding Indian patients who discontinued medications (such as insulin in diabetics) at the insistence of a traditional healer and suffered medically as a result. Again, however, these seem to be rare instances, and may be no different from cases of patients from a variety of cultural backgrounds who alter medications on their own, discontinue treatments, or fail to present for specialist treatments. There were some cases in which an indigenous etiology was expressed, resulting in a consultation with a healer only, but these were few in number. In most cases where a healer was contacted for a health problem, this was *after* consultation with a physician. Individuals who reported simultaneous utilization of western and traditional medical services invariably consulted a physician first, then a healer.

The nature of the study, particularly the use of an availability sample in a province with universal medical insurance, makes inferences beyond the research setting fraught with difficulty. It is not possible to say that similar results would be retained in a study of urban middle-class Natives in Saskatoon, or that the patterns demonstrated here would reflect those in rural or remote areas.

The persistence of traditional Indian medicine in the city (and in rural areas) does not appear to present a threat to the utilization of western medical services; there is no contradiction in serial or simultaneous utilization by patients. Indeed, the data suggest that those most likely to use one are also most likely to use the other, and there may exist a sub-population of the urban Native population that avoids both western and traditional services. The implications are that practitioners in the traditional and western medical systems should be, at the very least, informed of the activities of the other with regard to specific patients. Whether this means more formal collaboration is certainly an issue for discussion.

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Notes

1. I refer in this paper to traditional Indian medical systems in the plural. Among aboriginal North Americans there existed a wide variety of medical techniques and an array of etiological, anatomical, surgical, and diagnostic knowledge. Despite this fact, there has been a tendency to refer to the traditional medical system in the singular, as if there was only one system or as if they were so similar as to effectively

represent one system. There have been very few attempts to survey the variety of medical knowledge and techniques of aboriginal North Americans, and as far as I know there have been no attempts at surveying this knowledge in a contemporary sense. Therefore, given the lack of data, I feel it is most appropriate to address the question of Indian medicine from the perspective that each culturally-defined group had its own, somewhat unique, medical system (acknowledging, however, that there were and still are similarities, the result of both borrowing and independent but parallel innovation).

2. In this paper, "Native" refers collectively to all status or registered Indians, non-status Indians and Metis.

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